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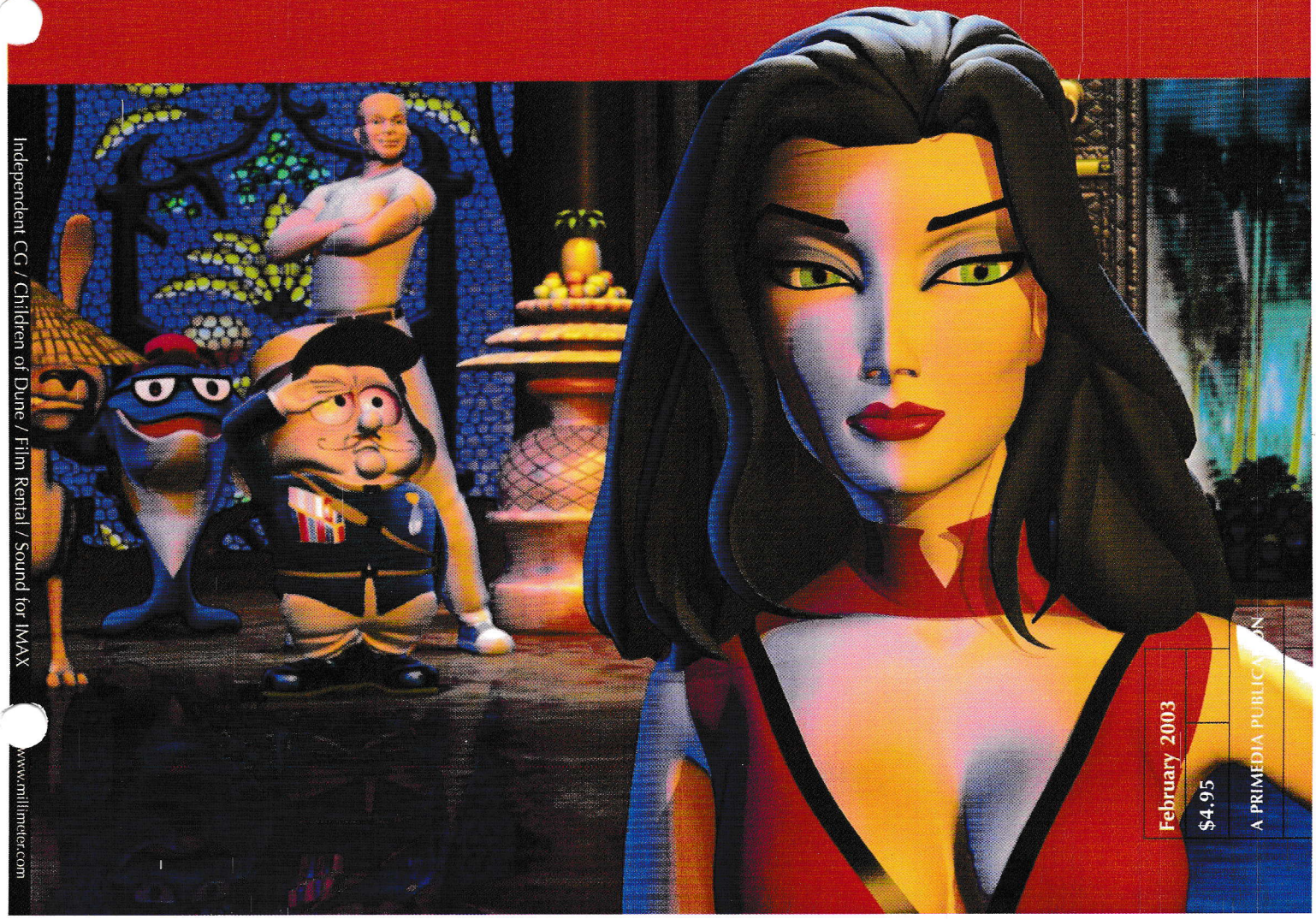

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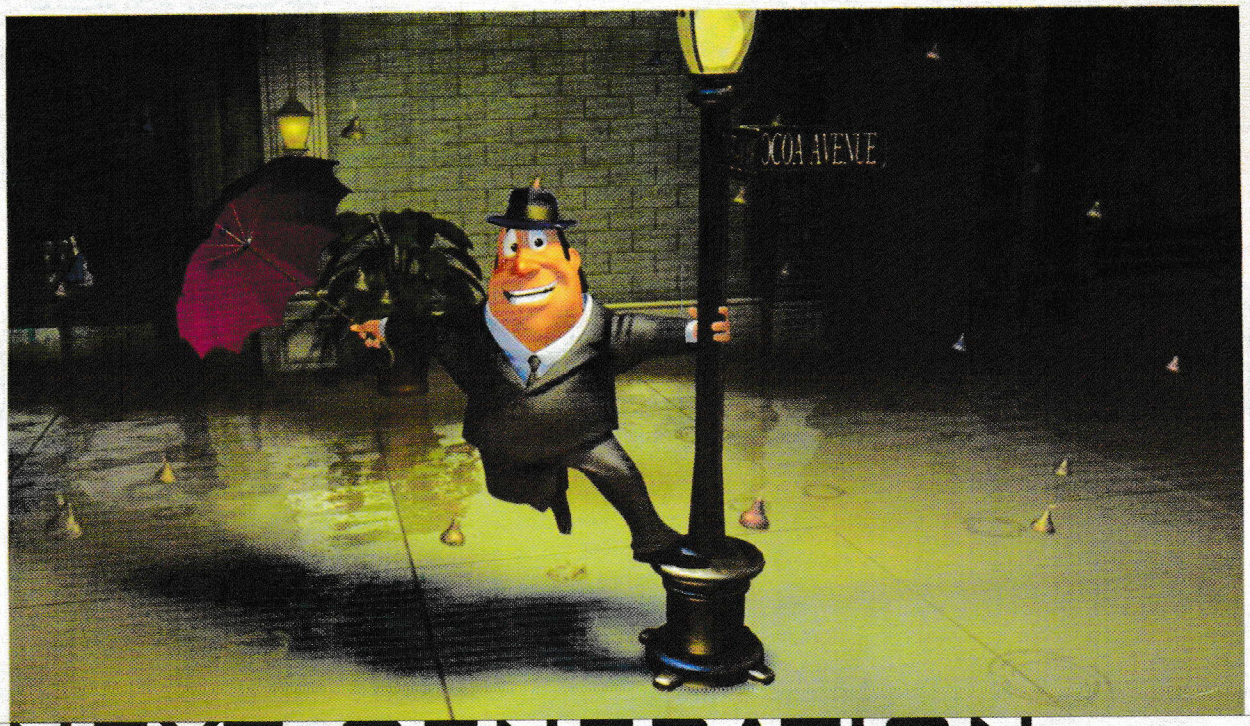
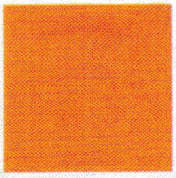
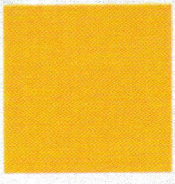


NEXT GENERATION DIGITAL STUDIO

TDRL Pursues Paradigm Shift With Foodfight!

By Michael Goldman





At first glance, Larry Kasanoff appeared to be asking his dog for approval on a shot from the upcoming, computer-animated feature film, *Foodfight!*

In the midst of a maelstrom of activity swirling around Santa Monica's Threshold Digital Research Labs (TDRL) on a recent afternoon, the sight of animators waiting anxiously by Kasanoff's door while the aforementioned pooch, Kiley, stared intently at Kasanoff's laptop seemed surreal, to say the least. Eventually, Kiley nudged the screen with her nose, after which the producer promptly asked the artists to make a couple of minor changes to the shot.

As the animators trudged back to their workstations—Kiley following—a chuckling Kasanoff, TDRL's chairman and producer/director of *Foodfight!*, refused to discuss the canine's exact role at the studio. But he did concede that the *Foodfight!* project and his company's five-year effort to become a global, digital animation production studio are both unorthodox endeavors, to say the least.

Risky Business

Foodfight! is the crown jewel in TDRL's master plan, and it is, indeed, a rare development in Hollywood: an independently financed, CG film that is already deep into production outside the studio system. Company executives say the film will include 138 main characters with speaking parts, 6,254 secondary characters that will be glimpsed in groups throughout the film, and 174 sets that include almost 5,000 buildings and 12,000 lights.

If true, all this would make *Foodfight!* one of the most complex digitally animated feature films ever produced, and yet, Kasanoff insists the movie will be made for as much as 40% less than recent, high-end, studio CG movies. He also claims the movie will soon reach the public via a studio distribution deal currently under negotiation.

Foodfight! tells a story about what happens in a supermarket when the lights go out and all the people leave. At that point, the store turns into a wild city, where various product icons—

both fictional icons and animated characters based on icons associated with real products, such as Mr. Clean, Chester Cheetah, and others, all licensed by TDRL—battle the nefarious schemes of the mysterious Brand X.

To illustrate the project's viability and to separate it from other so-called independent CG movie projects, TDRL recently gave *Millimeter* an exclusive, big-screen viewing of a 7-minute clip from the movie—a clip which had been transferred to film and includes fully rendered and richly colored portions of the film's opening sequence, and several scenes featuring impressive character animation. TDRL also showed *Millimeter* several computer models and scenes still under construction.

Kasanoff, former president of James Cameron's company, Lightstorm Entertainment, and producer of the *Mortal Kombat* entertainment media franchise, claims the movie will be "proof that $120 million dollar CG films can be made independently for half that price, at the same or higher quality as studio CG films, and attract the same audience."

This is noteworthy, considering only a handful of domestic companies has ever attempted to self-finance and produce a feature-length CG film that could merit entry into the major studio distribution chain. In fact, the animation landscape is littered with failed projects (see "Cautious Hope," page 22), making TDRL's efforts seem all the more bold.

On the business side, TDRL proceeded into production on *Foodfight!* before getting anywhere near a studio distribution deal. For a high-end, computer-generated film, this is an exceedingly rare and risky approach.

"We had to put a huge chunk of our own money into the project at the very start," says Kasanoff. "This does break every rule in the producer's handbook, which says, 'Never risk your own money.' But we felt, three years ago, that we had to invest our own money to prove to the world we could make a digitally animated feature independently."

According to Kasanoff, TDRL invested millions of its own money to launch the project, and has since added enough from private investors to permit the movie to be made on a $60 million budget.

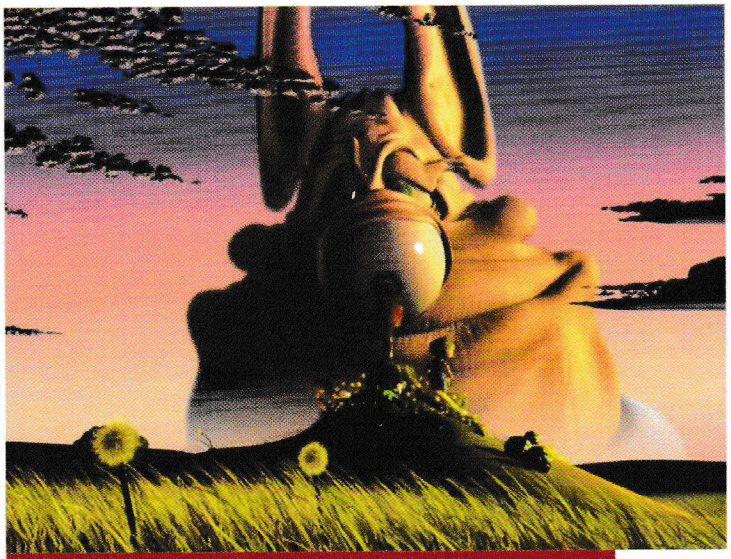
The goal of all this, however, is far more than the mere production of a CG feature. The ultimate plan, Kasanoff ambitiously admits, is to move TDRL to "a level beyond Pixar."

The comparison is made with respect since Pixar remains one of the few independent computer-animation companies ever to make multiple, successful, high-end feature films and retain its independence, although the company had to use its exclusivity deal with Disney to accomplish that goal. Its peers—PDI and Blue Sky—were sold outright to major studios (DreamWorks and Fox, respectively) in order to get there, and few others have even tried.

TDRL's plan includes the CG feature film Foodfight! *(above) and high-end CG theme park film work like (top left) Hershey's* The Really Big 3D Show.

TDRL, on the other hand, enters the fray with no allegiance to any major studio, by offering a product that, creatively and financially, fits distributors' requirements "like a glove," according to Kasanoff. He believes that fun CG movies produced economically represent an enticing low risk for distributors.

To offer those movies, TDRL had to become a global, digital production studio, designed to keep overhead low by working remotely with animators, all of whom are plugged into the company's network. Then, to make sure all the company's finances do not depend solely on *Foodfight!*, TDRL uses that same infrastructure to power a robust production services division that creates high-end CG theme park films, short films, and animated TV shows for outside clients, generating revenue and valuable R&D breakthroughs that are, in turn, applied to the feature film division.



For Nickelodeon, TDRL's production services created Berkeley Breathed's Edward Fudwupper Fibbed Big.

Pipeline

TDRL executives emphasize that the recipe for this effort is multi-tiered, including strong stories and a reliance on a lean, veteran management team with extensive experience as film and TV producers. But the technical center of this effort is the studio's digital network.

That network is built around PC-based hardware, off-the-shelf software, the development of select proprietary tools, and the use of high-speed communication technology to permit routine remote collaboration.

Kasanoff hired industry veteran George Johnsen five years ago to serve as TDRL's chief technology officer and build the pipeline's infrastructure.

"The strategy was designed to use off-shelf technology, but often in ways it was not originally designed for," Johnsen explains. The first step in this process was choosing a uniform hardware platform, and TDRL partnered with IBM for this purpose.

"IBM had a number of advantages in terms of digital production," says Johnsen. "First, their base hardware platform, the IntelliStation, is used on a global level, which makes it easy for any artist around the world to work within our equipment specs—an important requirement in building a virtual production network. Second, in addition to IntelliStations, IBM has vast resources at its disposal, and has particular expertise with moving, storing, and tracking tremendously large files. They were equipped to help us move rendered frames of animation around the world. They already had software and database systems that we could modify for digital film production. And finally, IBM is a big supporter of Linux."

According to Johnsen, IBM's worldwide Linux initiative was important because TDRL felt its next technology step should be a logical migration toward the Linux platform.

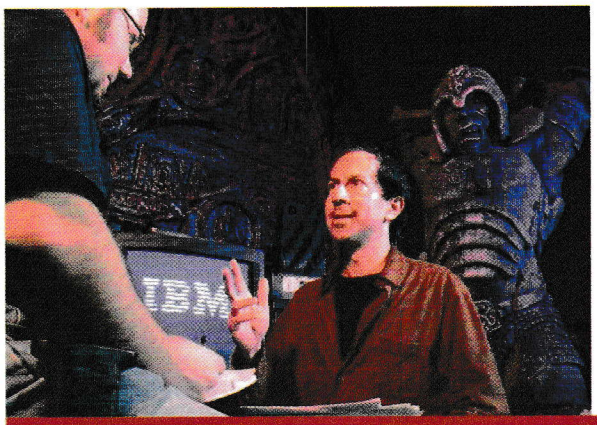
"At some point, you need to make the operating system invisible if you want to maximize efficiency," Johnsen explains. "Linux makes sense because the interior architecture of the operating system does not slow down with any of the functions, it's a universal upgrading system, and although Windows has improved greatly in terms of making the operating system transparent, Linux is even more transparent. Why is this important for us? If you are dealing with large, high-resolution pieces of art, making a movie, you don't want to see the operating system on your screen. All you want to see is the art. Also, the system works well in terms of our plan for data management and control."

The goal of this approach, according to Johnsen, is to decentralize production. Rather than keeping an entire job under one roof in Santa Monica, or working with a single offshore collaborator, TDRL was committed to the notion of being a virtual studio, and so, Johnsen called upon Sprint's communications network.

"Obviously, we want to utilize talent wherever it exists, and we want to keep overhead low, but we also need to have everyone working with uniform tools to manage the data better," says Johnsen. "This [Sprint] network lets us do that. Each of our animators anywhere in the world can have a common hardware and software suite, which we designed with IBM. We have a 400-node rendering system here at our facility, which we'll be growing as *Foodfight!* moves further along, so we can get scene files from our artists anywhere in the world and render them here into finished frames."

In addition to using off-the-shelf components, TDRL also writes its own software and plug-ins, all dedicated to the goal of producing animation more cost-effectively.

"I'm not a big proponent of writing proprietary systems from the ground up, but I do believe in writing pieces of systems to work with installed technology, so we developed our own artificial intelligence system, to let us animate crowds quicker, for instance," says Johnsen. "We have written other



TDRL chairman Larry Kasanoff

code that enhances our ability to do the sort of 'classic animation' look that you will see in *Foodfight!* But the software and plug-ins we develop work directly with off-the-shelf packages, so there is no additional time wasted trying to get people up to speed. We also use off-shelf software in combinations you don't often see—like LightWave and Maya together. We do that mainly because both have specific advantages, and both have a highly trained user community out there, so as we hire animators to work remotely around the world, we don't have to start from scratch in training them on the technology we use."

Other Building Blocks

TDRL's growing production services division has great synergy with the movie production side because it brings feature-film production procedures to the world of theme park and ride movies, a place where TDRL has found solutions and shortcuts to many technical challenges.

In the last year, the division created Hershey's *The Really Big 3D Show*, a stereoscopic, feature-length, 3D film for visitors to Hershey's Chocolate World in Hershey, Penn., *Edward Fudwupper Fibbed Big*, a theatrical short for Nickelodeon, directed by *Bloom County* comic strip creator Berkeley Breathed, and the company is also in production on theme park films for Disney and Paramount.

If *Foodfight!* succeeds, Kasanoff predicts this will cause a paradigm shift in how CG features are born in Hollywood. "Look at the history of Hollywood," he says. "People have made great movies for decades. Some of those movies, however, were made for the wrong price. If some movies that are now considered box-office failures were made at half their actual cost, perhaps they wouldn't be considered failures. So the requirement of a company like ours is not only to make great movies, which we are confident we are doing, but to also do it at the right price. We strongly feel that we have created the right approach to make this happen."